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Chapter 09

Fire Management Planning & Response

Policy

Planning: Every area with burnable vegetation must have an approved Fire Management Plan (FMP). FMPs are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved Land Management Plan (LMP). FMPs must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations. (*2001 Federal Wildland Fire Management Policy*).

For complete interagency policy guidance see:

http://www.nwccg.gov/branches/ppm/fpc/archives/fire_policy/index.htm

Operational Use of Fire Management Plans

Fire organizations responding to wildland fires must utilize the direction in the FMP to guide the fire management response

Concepts and Definitions

Land/Resource Management Plan

A document prepared with public participation and approved by the agency administrator that provides general guidance and direction for land and resource management activities for an administrative area. The L/RMP identifies fire's role in a particular area and for a specific benefit. The objectives in the L/RMP provide the basis for the development of fire management objectives and the fire management program in the designated area.

Fire Management Plan

A plan that identifies and integrates all wildland fire management and related activities within the context of the approved L/RMP. It defines a program to manage planned and unplanned wildland fires. The plan is supplemented by operations plans, including but not limited to preparedness plans, preplanned dispatch plans, prescribed fire burn plans, and prevention plans. FMPs assure that wildland fire management goals and components are coordinated.

Purpose

The fire management planning process and requirements may differ among agencies. However, for all agencies (Forest Service, Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, and National Park Service), a common purpose of a FMP is to provide decision support to aid managers in making informed decisions on the appropriate management responses to unplanned ignitions. The FMP includes a concise summary of information organized by fire management unit (FMU) or units.

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2 In addition, for the Department of the Interior (DOI) agencies, the FMP contains
3 strategic and operational elements that describe how to manage applicable fire
4 program components such as: response to unplanned ignitions, hazardous fuels
5 and vegetation management, burned area emergency stabilization and
6 rehabilitation, prevention, community interactions and collaborative partnerships
7 roles, and monitoring and evaluation programs.

8
9 Each FMP will evolve over time as new information becomes available,
10 conditions change on the ground and changes are made to L/RMP.

11
12 For an example of an FMP see *Interagency Fire Management Plan Template*,
13 *April 9, 2009* at <http://www.nwccg.gov/branches/ppm/ifpc/inex.htm>

- 14 • **FS** - An example FS FMP can be found at:
15 <http://fsweb.wo.fs.fed.us/fire/fmp/>

16 17 **Fire Management Unit**

18 The primary purpose of developing Fire Management Units (FMU)s in fire
19 management planning is to assist in organizing information in complex
20 landscapes. The process of creating FMUs divides the landscape into smaller
21 geographic areas to more easily describe physical/biological/social
22 characteristics and frame associated planning guidance based on these
23 characteristics. FMUs should be developed through interagency efforts and
24 interactions to facilitate common fire management across boundaries. See the
25 *Interagency Fire Management Plan Template, April 9, 2009*.

26
27 An FMU can be any land management area definable by objectives,
28 management constraints, topographic features, access, values to be protected,
29 political boundaries, fuel types, major fire regime groups, and so on, that set it
30 apart from the management characteristics of an adjacent FMU. The FMU may
31 have dominant management objectives and pre-selected strategies assigned to
32 accomplish these objectives. See *Guidance for Implementation of Federal*
33 *Wildland Fire Management Policy February 2009*.

34 35 **Wildland Fire**

36 Wildland fire is a general term describing any non-structure fire that occurs in
37 the wildland. Wildland fires are categorized into two distinct types:

- 38 • **Wildfires** - Unplanned ignitions or prescribed fires that are declared
39 wildfires. See *Guidance for Implementation of Federal Wildland Fire*
40 *Policy, February 13, 2009*.
- 41 • **Prescribed Fires** - Planned ignitions. See *Guidance for Implementation of*
42 *Federal Wildland Fire Policy, February 13, 2009*.

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1 Response to Wildland Fire

2 Fire, as a critical natural process, will be integrated into land and resource
3 management plans and activities on a landscape scale, and across agency
4 boundaries. Response to wildland fires is based on ecological, social and legal
5 consequences of the fire. The appropriate response to the fire is dictated by:

- 6 • The circumstances under which a fire occurs
- 7 • The likely consequences to firefighter/public safety and welfare
- 8 • The natural/cultural resource values to be protected

9

10 See *Guidance for Implementation of Federal Wildland Fire Policy, February 13,*
11 *2009.*

12

13 Initial Action

14 The actions taken by the first resources to arrive at a wildfire. Initial actions
15 may be size up, patrolling, monitoring, holding actions, or aggressive initial
16 attack. See *NWCG Glossary of Wildland Fire Terminology, January 2005.*
17 Initial action on human-caused wildfire will be to suppress the fire at the lowest
18 cost with the fewest negative consequences with respect to firefighter and public
19 safety.

20

21 Initial Attack

22 A planned response to a wildfire given the wildfire's potential behavior. The
23 objective of initial attack is to stop the spread of the fire and put it out in a
24 manner consistent with firefighter and public safety and values to be protected.
25 See *NWCG Glossary of Wildland Fire Terminology, January 2005.*

26

27 Extended Attack

28 Suppression activity for a wildfire that has not been contained or controlled by
29 initial attack or contingency forces and for which more firefighting resources are
30 arriving, en route, or being ordered by the initial attack incident commander.
31 See *NWCG Glossary of Wildland Fire Terminology, January 2005.*

32

33 Wildfire Suppression

34 Suppression - all the work of extinguishing a fire or confining a fire beginning
35 with its discovery. See *Guidance for Implementation of Federal Wildland Fire*
36 *Policy, February 13, 2009.*

37

38 Wildland Fire Management Objectives

39 A wildland fire may be concurrently managed for one or more objectives and
40 objectives can change as the fire spreads across the landscape. Objectives are
41 affected by changes in fuels, weather, topography; varying social understanding
42 and tolerance; and involvement of other governmental jurisdictions having
43 different missions and objectives.

44

45 Management response to a wildland fire on federal land is based on objectives
46 established in the applicable Land/ Resource Management Plan and/or the Fire

1 Management Plan. See *Guidance for Implementation of Federal Wildland Fire*
2 *Policy, February 13, 2009.*

3

4 Human caused Wildland fires will be suppressed in every instance and will not
5 be managed for resource benefits.

6

7 **Wildfire Responses**

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9 **Responding to a Wildfire**

10 Responses to wildland fire will be coordinated across levels of government
11 regardless of the jurisdiction at the ignition source. Management response to a
12 wildland fire on federal land is based on objectives established in the applicable
13 Land/ Resource Management Plan and/or the Fire Management Plan. Initial
14 action on human-caused wildfire will be to suppress the fire at the lowest cost
15 with the fewest negative consequences with respect to firefighter and public
16 safety. See *Guidance for Implementation of Federal Wildland Fire Policy,*
17 *February 13, 2009.*

18

19 **Escaped Initial Attack**

20 A fire has escaped initial attack when:

- 21 • The fire has not been contained by the initial attack resources dispatched to
22 the fire and there is no estimate of containment or control and;
- 23 • The fire will not have been contained within the initial attack management
24 objectives established for that zone or area.

25

26 **Wildland Fire Decision Support System (WFDSS)**

27 The Wildland Fire Decision Support System (WFDSS) is a web based decision
28 support system, which replaces the Wildland Fire Situation Analysis (WFSA),
29 Wildland Fire Implementation plan (WFIP), Long Term Implementation Plan
30 (LTIP) and Strategic Implementation Plan (SIP). These documents have been
31 combined into a single dynamic process within the WFDSS. WFDSS utilizes
32 GIS information that incorporates modeling, documentation of a decision
33 process, and multiple databases. These features are combined into a system that
34 gives the decision maker maximum flexibility in defining their course of action
35 and subsequent strategic and tactical actions based on planning documents,
36 incident specific analysis and risk assessment. As an internet based system with
37 multiple database links; WFDSS can give decision support in a timely and
38 efficient manner.

39

40 Use of WFDSS for all unplanned fires has been implemented differently
41 throughout the agencies. It is the decision of the local unit to determine who
42 shall be responsible for initial entry and updating fires in the system. Mandatory
43 use of WFDSS is required for all agencies.

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1 **WFDSS Support**

2 A National Fire Decision Support Center (NFDC) has been established to
3 support analysis used in wildland fire decision making and WFDSS. The
4 support provided by NFDC consists of developing, improving, and increasing
5 production and operational use of decision support products. As part of that
6 support NFDC will provide not only direct decision support but also mentoring
7 and training to develop and strengthen regional and unit level decision support
8 capacity. Information for requesting assistance from the NFDC can be found
9 at the WFDSS website: <http://WFDSS.usgs.gov>. An over view of the WFDSS
10 Elements can be found in appendix S.

11

12 **WFDSS User Roles**

13 Privileges within WFDSS are controlled by several user roles which have
14 varying levels of capability in relation to creation and editing of incidents,
15 analyses, reports, and decisions. More information can be found on the WFDSS
16 homepage under the Related Resources link.

17

18 **Fire Modeling**

19 Fire modeling has been incorporated into WFDSS, in the form of the FIRE
20 Spread Probability model (FSPRO) and FlamMap. Single purpose models from
21 FlamMap; the “Basic” and “Short Term”, have been incorporated in to the
22 system. Comparison of WFDSS short and basic models to stand alone
23 FlamMap and other fire behavior information can be found on the WFDSS
24 homepage under the Related Resources link, fire behavior section. Information
25 for requesting assistance in running these models for your incident can be found
26 at the WFDSS homepage through the National Fire Decision Support Center
27 (NFDC).

28

29 **Response Levels**

30 WFDSS can be used to assess the entire spectrum of incident complexity and
31 risk within three Response Levels (RL), RL1, RL2, and RL3. These response
32 levels are used in a manner similar to that of the stages of a WFIP in that your
33 incident can escalate and de-escalate through these levels as the incident
34 progresses. WFDSS differs from the WFIP process in that there is no nationally
35 prescribed time requirement in which a RL must be completed. The movement
36 through Response Levels does not necessarily need to be linear and should be
37 determined by incident complexity, objectives, and expected duration of the
38 incident.

- 39 • **RL1** - Most fires will not progress beyond this point. Response Level 1 is
40 characterized by basic analysis and preplanned actions and decisions. This
41 RL will be similar to the WFIP stage 1.
- 42 • **RL2** - Response Level 2 is characterized by a more detailed analysis and
43 planning process. It is at this point your initial course of action is developed
44 and a decision is approved by an agency administrator. This RL is
45 comparable to WFIP stage 2.

- 1 • **RL3** - Response Level 3 is characterized by a very detailed analysis and
 2 course of action that may include long-term planning considerations. This
 3 RL is comparable to WFIP stage 3 or the Long Term Implementation Plan
 4 (LTIP). Fires in this category will typically be large, highly complex, or
 5 long-term fire management events. This RL decision document must also be
 6 approved by an agency administrator.

7
 8 **WFDSS Decision Approval and Publication**

9 Decisions in WFDSS are approved and published by the appropriate line officer
 10 as defined in the table below. Incident privileges must be assigned within
 11 WFDSS to designate the approver. During the approval process, prior to
 12 publishing a decision, the timeframe for periodic assessment can be set (1-14
 13 days).

14
 15 It is imperative that a decision be reviewed carefully as once approved and
 16 published, a decision becomes a system of record and all WFDSS users can
 17 view the information. Additionally, the action CANNOT be undone. If there is
 18 an error in the information, or new information is added for documentation or
 19 update (i.e. fire behavior, Management Action Points) a new decision must be
 20 made to permanently update the record.

21
 22 **WFDSS Approval Requirements**

Cost Estimate	BIA	BLM	FWS	NPS	USFS
\$0-\$2M	Agency Superintendent	Field/District Manager	Project Leader/ Refuge Manager	Park Superintendent	District Ranger
\$2M-5M	Regional Director.	State Director.	Regional Director.	Regional Director.	Forest Supervisor
\$5M-10M	BIA Director.	BLM Director.	FWS Director.	NPS Director.	Forest Supervisor
\$10M-50M	BIA Director.	BLM Director.	FWS Director.	NPS Director.	Regional Forester
>50M	BIA Director.	BLM Director.	FWS Director.	NPS Director.	USFS Chief

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1 **Periodic Assessment**

2 The Periodic Assessment must be completed by the designated approver at the
3 time frame set during the publication process. This timeframe can be set 1-14
4 days depending upon the complexity and status of the incident and the Line
5 Officer can request a reminder email for the morning the next assessment is due.
6 It is beneficial to document clear, concise information about the incident when
7 completing the periodic assessment as this information will be part of the
8 decision record. It is a way for someone to gather situational awareness of the
9 incident and should be useful information not only during the incident but for
10 years to come when looking back at the incident. It is especially pertinent
11 because it will outline your thought process and reasons for either continuing a
12 current decision or requiring a new decision.

13

14 **Wildland Fire Decision Support System (WFDSS) Tools**

15 Modeling tools are available to assist fire managers and agency administrators in
16 decisions regarding strategies and tactics.

17

18 Rapid Assessment Values-at-Risk (RAVAR) is the primary fire economics tool
19 within the Wildland Fire Decision Support System (WFDSS). It utilizes Fire
20 Spread Probability Model (FSPro) outputs and county assessor cadastral data for
21 structural property values as well as other Tier 1 (national) and Tier 2 (regional)
22 values at risk. RAVAR is typically integrated with the FSPro model to identify
23 the likelihood of a resources being impacted in the potential fire path but can be
24 linked to any expected fire spread polygon. This quantifiable data can be used to
25 inform managers while developing the best course of action.

- 26 • **USFS** - Congressional mandate required the Forest Service to develop a
27 performance measure for wildland fire suppression expenditures which
28 resulted in the development of the Stratified Cost Index (SCI). The SCI
29 estimates expenditures on individual large wildland fires (>300 acres) by
30 geographic area considering characteristics of the fire, the fire environment
31 and values within proximity of the fire. The use of SCI for Forest Service
32 fires is not mandated however it is recommended that SCI be used for large
33 FS fires exceeding 5 million dollars or that will likely be audited. Check
34 with your Forest or Region for local protocol on the use of SCI.
- 35 • **DOI** - There are unique SCI models which have been developed for each
36 DOI agency. Agency-specific direction will be given in the future related to
37 when the models will be available in WFDSS, and how field units will use
38 them in cost estimation.